

HPV1 SERIES

HYDRAULIC PILOT CONTROL



HYDRAULIC PILOT CONTROL HPV1

HPV1 Pilot Control Valves are part of the comprehensive range of our product.

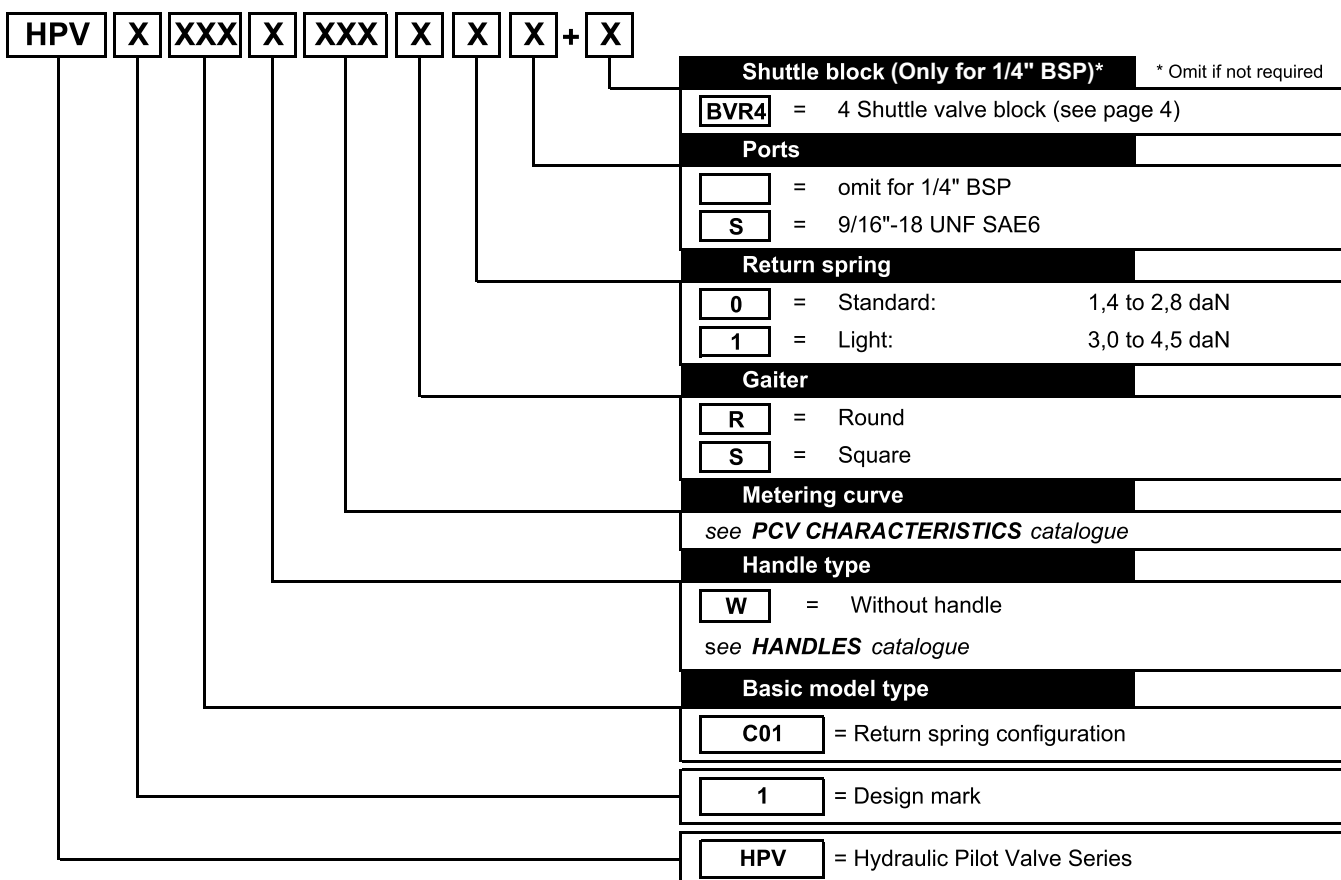
The product, with its single lever dual axis control, and supported by an extensive range of control curve characteristics and handle options, makes it suitable for a wide range of both mobile and industrial applications.

Our engineers can offer specialist support to optimise this product to suit your application. The product is supported by a comprehensive sales and service facility around the world.

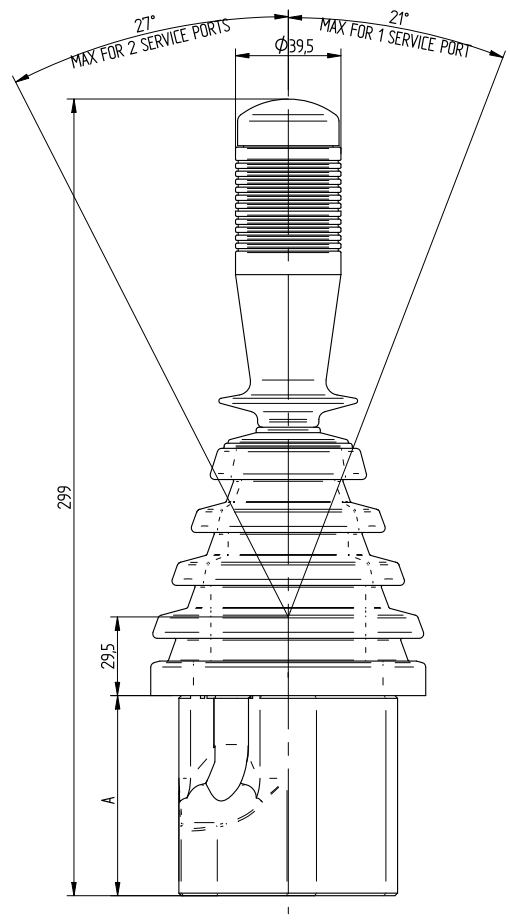
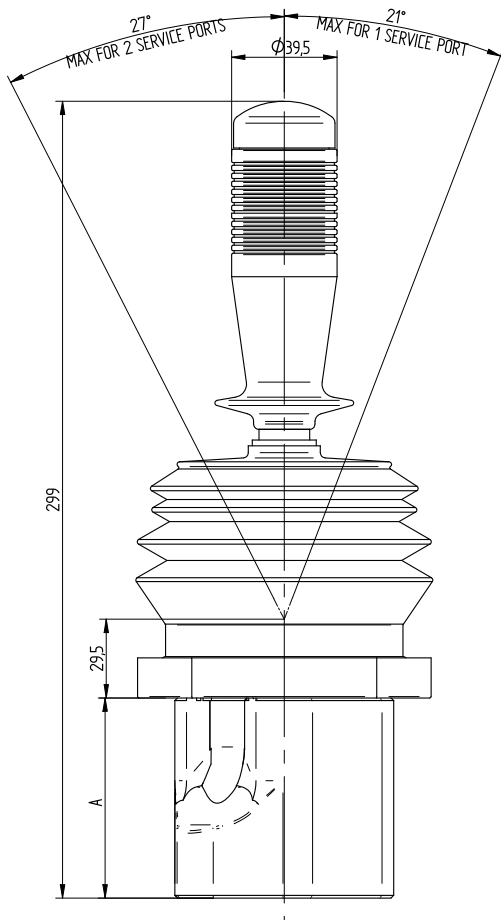
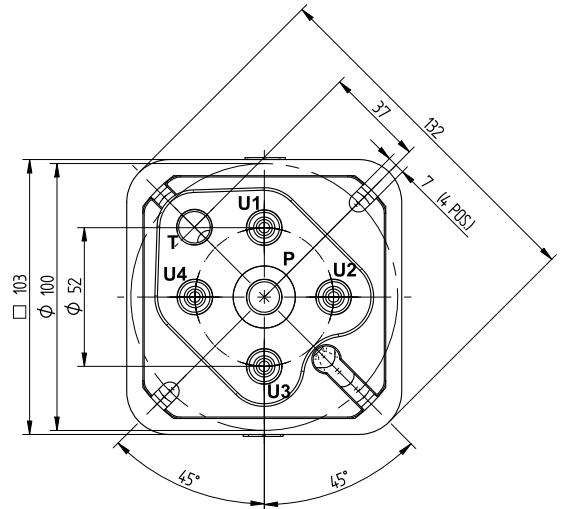
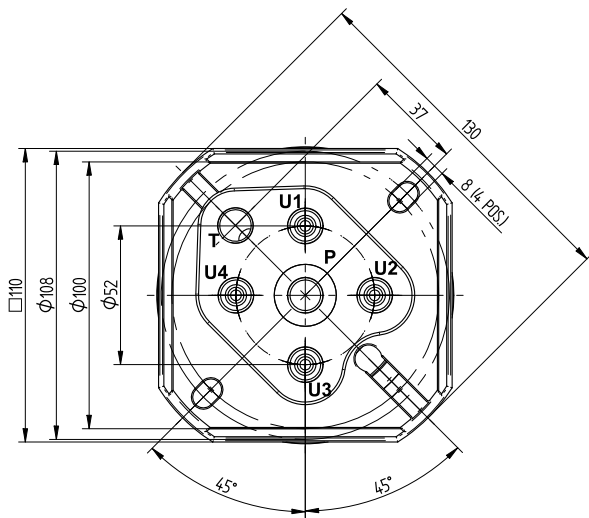
BENEFITS

- Compact and light weight
- All ports on bottom face for ease of installation
- Suitable for arm rest of console mounting
- Compatible with a wide range of product
- Stylish good looks suitable for modern cabs
- Operator is insulated from high temperature components
- Proven, simple pressure reducing elements
- Wide range of low hysteresis, high accuracy, pressure control curves
- Wide range of electrical options in both standard and multi-functional ergonomic handles
- Low effort lever control

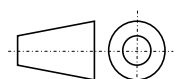
ORDER CODE



HYDRAULIC PILOT CONTROL HPV1 Installation Drawing



A= 75 mm 1/4" BSP PORTS
A= 82 mm 9/16"-18 SAE6 PORTS

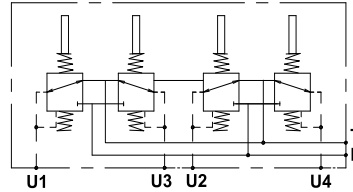


HYDRAULIC PILOT CONTROL HPV1 Technical Data and Installation Drawing

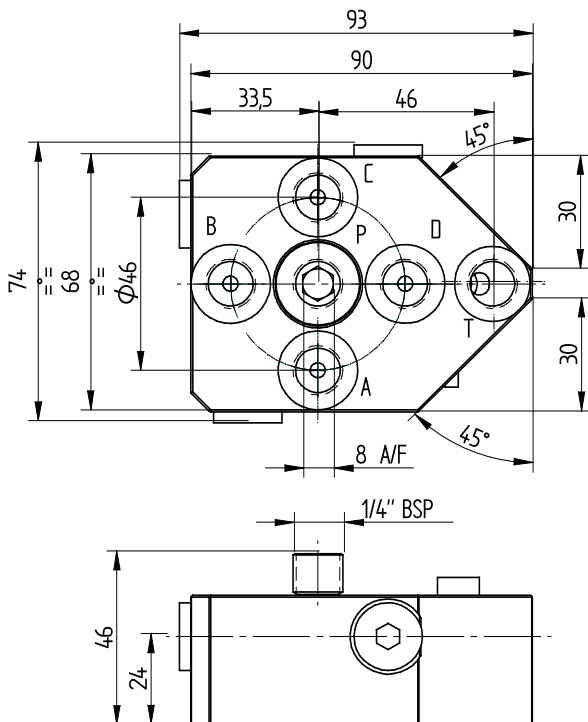
TECHNICAL DATA

Service ports	: P, T, U1, U2, U3, U4; 1/4" BSP
Maximum inlet pressure	: Port P - 50 bar
Maximum back pressure	: Port T - 3 bar
Supply flow range	: from 5 up to 20 litres/minute
Maximum Hysteresis	: +/- 0.5 bar
Fluid	: Mineral Oils ISO, HM and HV
Contamination class	: 21/16/13 ISO 4406/1999
Fluid temperature range	: from -20 up to +80°C

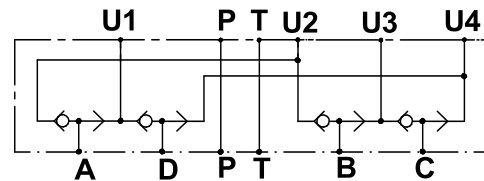
HYDRAULIC CIRCUIT DIAGRAM



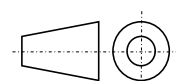
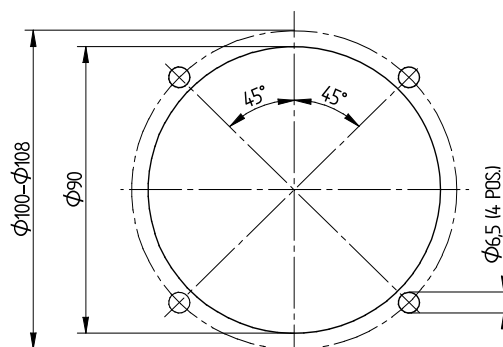
BVR4 SHUTTLE BLOCK



HYDRAULIC CIRCUIT DIAGRAM



TYPICAL INSTALLATION DIMENSION



HPV2 SERIES

HYDRAULIC PILOT CONTROL



HYDRAULIC PILOT CONTROL HPV2

HPV2 Pilot Control Valves are part of the comprehensive range of our product.

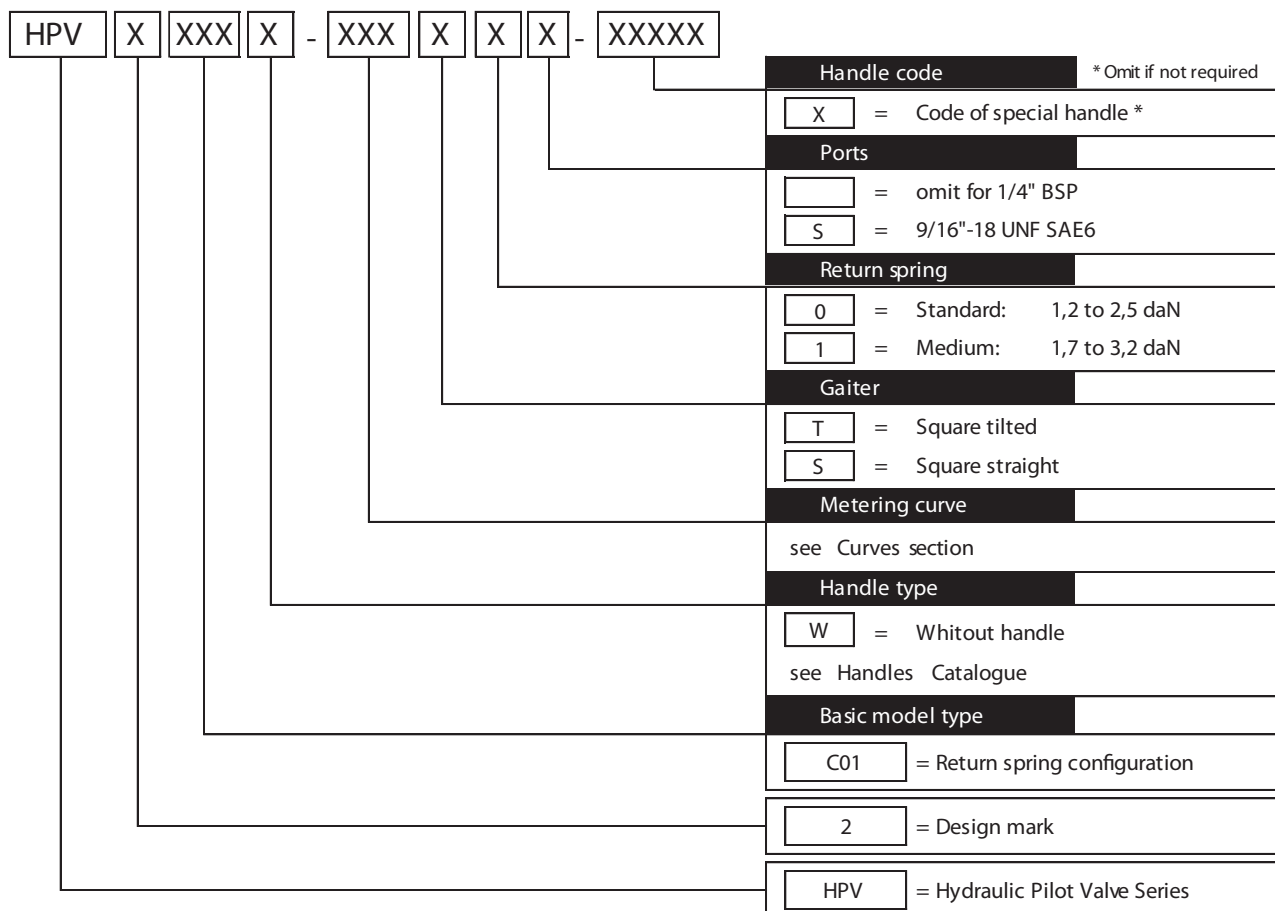
The product, with its single lever dual axis control, and supported by an extensive range of control curve characteristics and handle options, makes it suitable for a wide range of both mobile and industrial applications.

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BENEFITS

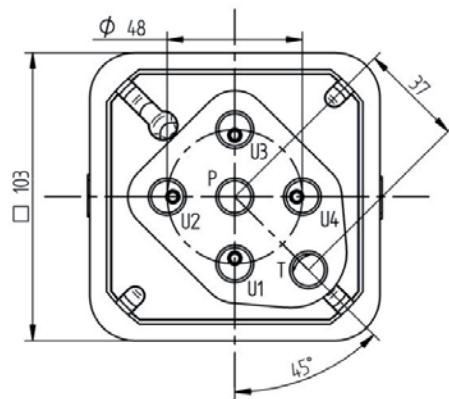
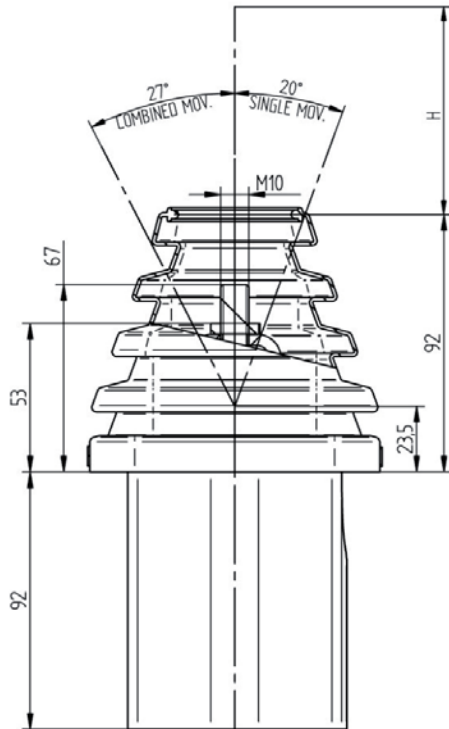
- Compact and light weight
- Low effort lever control and smooth movements
- Rugged construction for long operating life
- Spare parts available for maintenance
- All ports on bottom face for ease of installation
- Suitable for arm rest of console mounting
- Compatible with a wide range of product
- Stylish good looks suitable for modern cabs
- Wide range of low hysteresis, high accuracy, pressure control curves
- Wide range of electrical options in both standard and multi-functional ergonomic handles
- Optional magnetic detent available

ORDER CODE



HYDRAULIC PILOT CONTROL HPV2 Technical Data and Installation Drawing

CONFIGURATIONS AVAILABLE *



GAITER SQUARE STRAIGHT



EXM HANDLE S HANDLE MFE2 HANDLE MFE HANDLE



GAITER SQUARE TILTED

Configuration	Approx net weight	Handle height (H)
Only Body & Gaiter	1.4 Kg	-
With S Handle	1.7 Kg	131 mm
With MFE2 Handle	1.8 Kg	153 mm
With MFE Handle	1.7 Kg	154 mm
With EXM Handle	1.6 Kg	137 mm

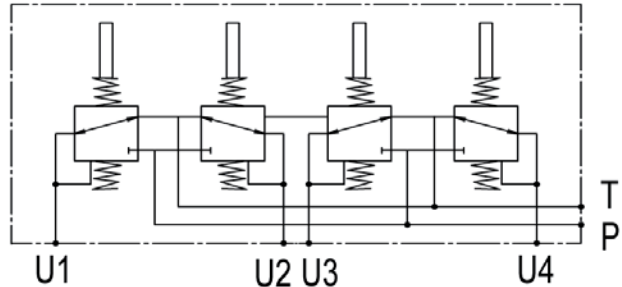
* All handles can be fully customizable to fit customer application. See Handle catalogue for details.

HYDRAULIC PILOT CONTROL HPV2 Technical Data and Installation Drawing

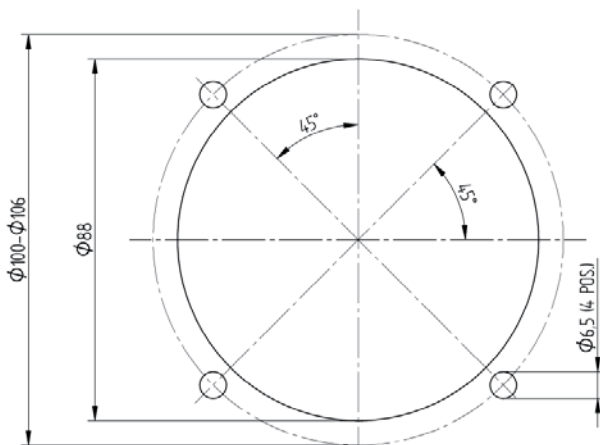
TECHNICAL DATA

Service ports: P,T,U1,U3,U4; ¼ BSP or 9/16 UNF
 Maximum inlet pressure: Port P – 50 bar
 Maximum back pressure: Port T – 3 bar
 Pilot oil flow: up to 15 l/min
 Maximum Hysteresis: +/- 0.5 bar
 Seals type: NBR
 Fluid: Mineral Oils ISO, HM and HV
 Contamination class: 21/16/13 ISO 4406/1999
 Fluid temperature range: from -20 to +80°C

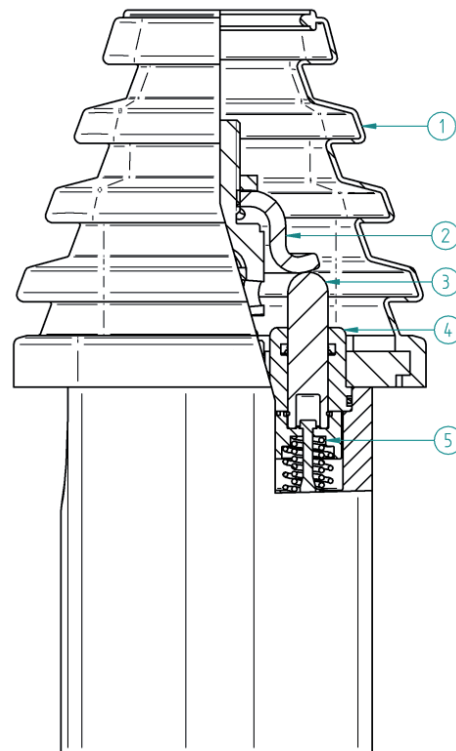
HYDRAULIC CIRCUIT DIAGRAM



TYPICAL INSTALLATION DIMENSION



SPARE PARTS



APPLICATIONS

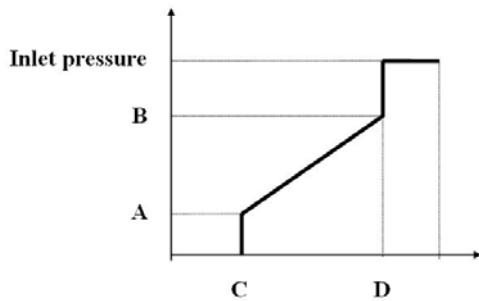
- Excavator and Mini-excavators
- Crane
- Forestry Machines
- Access platforms
- Container handlers
- Tracked Machines
- Skid steer loader
- Forklift trucks

Pos	Description	Part Number
1	Gaiter	P9634000353 (straight) P9734000303 (tilted)
2	Operating disc	P9734000053
3	Kit plunger	G9734000013 (for curve with step) G9734000023 (for curve no step)
4	Kit guide-seals	G9734000003 (with o-ring and seal)
5	Kit Metering curve	G97349YXXX3 (Y=return spring type; XXX=ID curve number)*

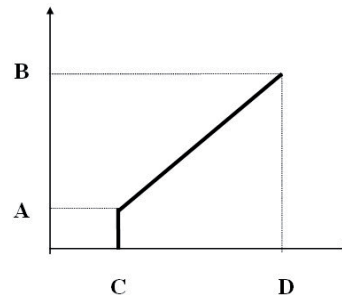
* See specific page for spring Type and curve numbers

HYDRAULIC PILOT CONTROL HPV2 Technical Data

METERING CURVES WITH STEP *



METERING CURVES WITHOUT STEP *

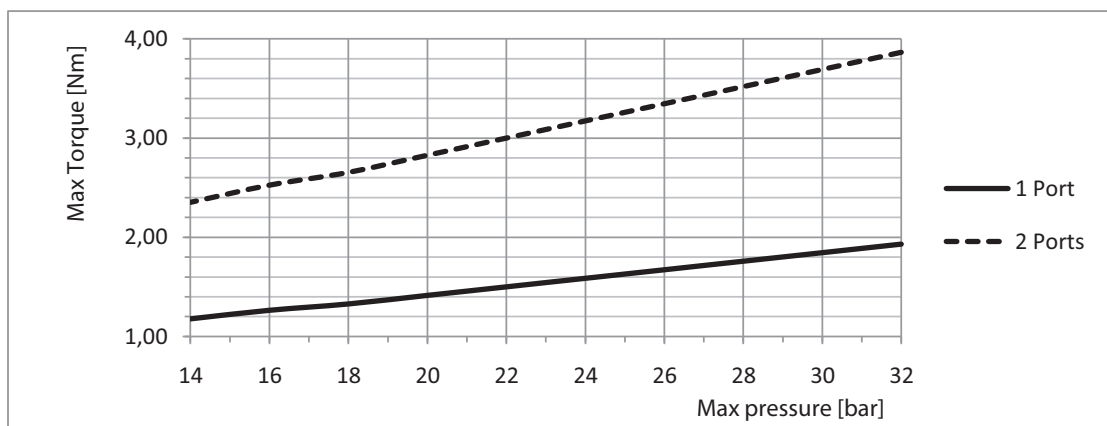


Press. [bar]		Stroke [mm]		ID Curve
A	B	C	D	
2.1	15.9	1	7.5	CR2- 078
2.7	11.5	1	7.5	CR2- 051
4.1	13	1	7.5	CR2- 122
4.2	21.8	1	7.5	CR2- 038
4.8	16.7	1	7.5	CR2- 117
4.9	18.6	1	7.5	CR2- 018
5.0	22.6	1	7.5	CR2- 116
5.6	23.1	1	7.5	CR2- 015
5.9	19.7	1	7.5	CR2 -106
5.9	23.4	1	7.5	CR2- 082
6.4	23.9	1	7.5	CR2- 115
7.4	21.2	1	7.5	CR2- 044
8.1	21.8	1	7.5	CR2- 098

Press. [bar]		Stroke [mm]		ID Curve
A	B	C	D	
2.0	14.9	1	8	CR2- 060
4.2	23.1	1	8	CR2- 074
4.9	19.7	1	8	CR2- 079
5.0	23.8	1	8	CR2- 202
5.1	19.9	1	8	CR2- 094
5.5	30.8	1	8	CR2- 133
5.6	24.5	1	8	CR2- 075
5.7	23.6	1	8	CR2- 036
6.2	31.5	1	8	CR2- 001
7.0	29.1	1	8	CR2- 068
8.0	26.9	1	8	CR2- 039
8.1	22.9	1	8	CR2- 059

* Tolerances on pressure settings ± 0.5 bar. Contact sale office for different metering curves

MAX OPERATING TORQUE **



** At full stroke of plungers. Don't take into account the rubber boot resistance.